



**CUYAHOGA COUNTY ENGINEER'S OFFICE
STORM WATER MANAGEMENT PROGRAM
OEPA PERMIT NO. 3GQ10003*AG
2003 ANNUAL REPORT**

MINIMUM CONTROL MEASURE:

Post – Construction Best Management Practices

CCEO STORM WATER MANAGEMENT PROGRAM TABLE NO.:

Table No. 4; BMP 1

BEST MANAGEMENT PRACTICE:

Update design standards and plan review procedures to consider post-construction water quality issues.

PERMIT REQUIREMENT(S):

3.2.5.1.1, 3.2.5.1.3, 3.2.5.2.3.1, 3.2.5.2.3.4

RESPONSIBLE PARTY:

Chief Bridge Design Engineer; Chief Highway Design Engineer

2003 MEASURABLE GOAL:

Review current practices by December 31, 2003

DESCRIPTION OF 2003 PROGRESS:

The Cuyahoga County Engineer's Office (CCEO) has reviewed its current design standards and plan review procedures regarding post-construction water quality issues. In general, on CCEO highway and bridge improvement projects, we have followed the policies of the Ohio Department of Transportation (ODOT) in implementing structural and non-structural BMPs for maintaining or enhancing post-construction water quality. Drainage design for CCEO improvement projects includes channeling roadway drainage to collection structures and depositing the drainage into new or existing storm sewers of adequate capacity. The collected storm water is thence discharged into an existing storm water collection system of adequate capacity or directly into the adjacent receiving waters of a creek or river.

The primary BMPs currently utilized by the CCEO for controlling post-construction water quality on County projects include: constructing fixed permanent drainage structures, such as curbs and gutters, roadside ditches, drainage inlets and catch basins; directing collected runoff in stabilized open or closed drainage systems and storm sewers; placing topsoil and planting vegetation; applying seeding and mulching; laying sod; and installing permanent rock channel

protection, concrete slope protection or sodded flumes to protect slopes that receive storm water runoff.

The CCEO Standards typically follow AASHTO guidelines rather than ODOT guidelines when considering lane widths which result in narrower lane widths. Secondly, the CCEO allows resurfacing projects to maintain the present lane width for projects that are signed and striped properly. This practice leads to less impervious area and less storm water runoff.

2004 MEASURABLE GOAL:

Research and explore alternatives by December 31, 2004



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CCEO STORM WATER MANAGEMENT PROGRAM TABLE NO.:

Table No. 4; BMP 2

BEST MANAGEMENT PRACTICE:

Revise co-operation agreement with municipalities to include considerations for long term maintenance of E&SC measures.

PERMIT REQUIREMENT(S):

3.2.5.1.4, 3.2.5.2.6

RESPONSIBLE PARTY:

Chief Transportation and Traffic Engineer

2003 MEASURABLE GOAL:

N/A

DESCRIPTION OF 2003 PROGRESS:

We have developed a contract term to be added to all of our standard Municipal Project Agreements that will ensure long term maintenance of E&SC measures.

2004 MEASURABLE GOAL:

New standard project agreements will be revised to reflect the new term by June 2004.

Every new project programmed after June of 2004 will have the following term added to the agreement:

“ After construction of the project is complete, the municipality agrees to follow and maintain post-construction Best Management Practices as outlined in the Municipal Storm Water Permit that is filed with the Ohio Environmental Protection Agency (O.E.P.A)”.



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CCEO STORM WATER MANAGEMENT PROGRAM TABLE NO.:

Table No. 4; BMP 3

BEST MANAGEMENT PRACTICE:

Create BMP workshop or other educational program for the public, county employees and contractors.

PERMIT REQUIREMENT(S):

3.2.5.1.1, 3.2.5.2.3.3

RESPONSIBLE PARTY:

Chief Construction Administrator

2003 MEASURABLE GOAL:

Research literature, information and currently offered workshops by December 31, 2003

DESCRIPTION OF 2003 PROGRESS:

- Video Training Course: “Keeping Soil on Construction Sites, Best Management Practices”. Ohio Department of Natural Resources, Division of Soil and Water Conservation
- The Cuyahoga Soil and Water Conservation District provides literature and information to aid in outreach efforts. Examples are: “Technical Note: Silt Fence”, “Technical Note: Storm Drain Inlet Protection”, “Technical Note: Temporary Seeding”, “Technical Note: Temporary Stream Crossing”, “Technical Note: Streambank Protection—Vegetative and Rip Rap”.
- The Cuyahoga Soil and Water Conservation District provides educational materials, teacher in-service programs, public involvement and education services.

2004 MEASURABLE GOAL:

Design policy and mechanism for educational activities December 31, 2004



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CCEO STORM WATER MANAGEMENT PROGRAM TABLE NO.:

Table No. 4; BMP 4

BEST MANAGEMENT PRACTICE:

Explore applicability of Structural E&SC Measures, storage, filtration and infiltration practices.

PERMIT REQUIREMENT(S):

3.2.5.1.2, 3.2.5.2.2, 3.2.5.2.4.1, 3.2.5.2.4.2, 3.2.5.2.4.3

RESPONSIBLE PARTY:

Chief Bridge Design Engineer; Chief Highway Design Engineer

2003 MEASURABLE GOAL:

Review current practices by December 31, 2003

DESCRIPTION OF 2003 PROGRESS:

The Cuyahoga County Engineer's Office (CCEO) has reviewed its current practices regarding the application of structural BMPs for post-construction erosion and sediment control. In general, on CCEO highway and bridge improvement projects, we have followed the policies of the Ohio Department of Transportation (ODOT) in implementing structural BMPs for controlling erosion and sediment. Drainage design for CCEO improvement projects includes channeling roadway drainage to collection structures and depositing the drainage into new or existing storm sewers of adequate capacity. The collected storm water is thence discharged into an existing storm water collection system of adequate capacity or directly into the adjacent receiving waters of a creek or river.

The primary structural BMPs currently utilized for by the CCEO for controlling post-construction erosion and sediment on County projects include: constructing fixed permanent drainage structures, such as curbs and gutters, roadside ditches, drainage inlets and catch basins; directing collected runoff in stabilized open or closed drainage systems and storm sewers; and installing permanent rock channel protection, concrete slope protection or sodded flumes to protect slopes that receive storm water runoff.

Subject: NPDES Phase II 2003 Annual Report
Table 4; BMP 4

Page 2

2004 MEASURABLE GOAL:

Research and explore alternatives by December 31, 2004



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STORM WATER MANAGEMENT PROGRAM
OEPA PERMIT NO. 3GQ10003*AG
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CCEO STORM WATER MANAGEMENT PROGRAM TABLE NO.:

Table No. 4; BMP 5

BEST MANAGEMENT PRACTICE:

Investigate and utilize structural and non-structural mechanisms to minimize water quality impacts and to maintain pre-development runoff conditions

PERMIT REQUIREMENT(S):

3.2.5.2.1, 3.2.5.2.2

RESPONSIBLE PARTY:

Chief Bridge Design Engineer; Chief Highway Design Engineer

2003 MEASURABLE GOAL:

Review current practices by December 31, 2003

DESCRIPTION OF 2003 PROGRESS:

The Cuyahoga County Engineer's Office (CCEO) has reviewed its current practices regarding structural and non-structural mechanisms to minimize water quality impacts. In general, on CCEO highway and bridge improvement projects, we have followed the policies of the Ohio Department of Transportation (ODOT) in implementing structural and non-structural BMPs for minimizing water quality impacts. Drainage design for CCEO improvement projects includes channeling roadway drainage to collection structures and depositing the drainage into new or existing storm sewers of adequate capacity. The collected storm water is thence discharged into an existing storm water collection system of adequate capacity or directly into the adjacent receiving waters of a creek or river.

The primary BMPs currently utilized for by the CCEO for minimizing water quality impacts on County projects include: constructing fixed permanent drainage structures, such as curbs and gutters, drainage inlets, and catch basins to direct and receive storm water runoff; placing topsoil and planting vegetation; applying seeding and mulching; laying sod; and installing permanent rock channel protection.

2004 MEASURABLE GOAL:

Research and explore alternatives by December 31, 2004



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CCEO STORM WATER MANAGEMENT PROGRAM TABLE NO.:

Table No. 4; BMP 6

BEST MANAGEMENT PRACTICE:

Inspect and maintain BMPs for Roads and Bridges falling under our maintenance responsibility.

PERMIT REQUIREMENT(S):

3.2.5.1.4, 3.2.5.2.6

RESPONSIBLE PARTY:

Chief Maintenance Supervisor; Chief Bridge Inspection/Maintenance Engineer

2003 MEASURABLE GOAL:

Identify Inspection Requirement by December 31, 2003

DESCRIPTION OF 2003 PROGRESS:

This process is completed through our Annual Bridge Inspection Reports, which are required per the Ohio Revised Code. The inspections for our bridges and culverts were completed for 2003 and, as shown under the Illicit Discharge BMP, three (3) structures were found with possible contaminants. We continue to work closely with the Bridge Design and Construction Departments to monitor the post construction activities and the dates when we are to take over the maintenance of all new or rehabilitated structures.

2004 MEASURABLE GOAL:

Train Employees by December 31, 2004 and continue inspections and maintenance of such.